

LEZNOV, E.I. [Leznov, Ye.I.]

Centrifugal casting of worm gears with metallic bushings.
Ratsionalizatsiia 3 no.3:26 '63.

LEZNOV, I.

Efforts to achieve the calling "plant of communist labor." Rech.
transp. 21 no.2:32-33 F '62. (MIRA 15:3)

1. Direktor Chistopol'skogo sudoremontnogo zavoda.
(Ships--Maintenance and repair)

BODROVA, V.V.; DROGALEVA, I.V.; KISELEV, B.A.; KOROLEV, A.Ya.;
LEZMOV, N.S.; MINDLIN, Ya.I.

Method for improving the properties of glass plastics, Plast.
massy no.3:30-32 '63. (MIRA 16:4)

(Glass reinforced plastics)

C A L E Z N O V, N. S.																									
PROCESSES AND PROPERTIES INDEX																									
<p>Catalyst for oxidizing toluene. S. V. Bogdanov and N. N. Lezhnev. Russ. Zh. Khim., Sept. 30, 1934. A catalyst for vapor phase oxidation of PhMe is prepd. by reduction of higher oxides of V. Mo or their mixt. with metal and acid and distributing the reduction product, or a mixt. of it with unreduced oxide, on a carrier.</p>																									
<p>ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																									
<p>GROUPS</p>																									

137 AND 138 OFFER

PROCESSES AND PROPERTIES INDEX

Preparation and properties of mesochloroacridine and acridone, and their derivatives: N. S. DROZDOV and N. S. LAMOVA (J. Gen. Chem. Russ., 1935, 8, 690-700). Mesochloroacridine (I) yields acridone (II), together with the hydrochloride (III) of a double salt of (I) and (II), when boiled with dil. HCl; (III) readily decomposes in aq. NH₃ or boiling H₂O to yield (II). 4'-Methoxydiphenylamine-2-carboxylic acid and excess of POCl₃ in xylene yield 5-chloro-3-methoxyacridine (IV), m.p. 164°, the hydrochloride of which is obtained by boiling with dil. HCl; with a limited amount of POCl₃ the product is 3-methoxyacridone. 5-Chloro-1-nitro-7-methoxyacridine (V), m.p. 226°, and its hydrochloride are prepared analogously. o-C₆H₄ClCO₂H, 4-nitro-2-aminoanisole, KOH, and CuO in iso-C₄H₉-OH (140°; 10 hr.)

CH₃ClCO₂H, m.p. 85-3°, PhOH, m.p. 93°, picric acid, m.p. 97.5°, all of type AB, salicylic acid, AB, m.p. 107°, and AB₂, m.p. 113°, o-, m.p. 108.5°, m-, m.p. 120°, and p-C₆H₄(OH)₂, m.p. 163°, all of type AB₂. No compounds are formed with AcOH, BaOH, or succinic acid. Et 2:4-dimethylpyrrole-5-carboxylate gives a compound AB₂, m.p. 100°, with picric acid (initial polymerization to B₂), but not with CH₃ClCO₂H, BaOH, PhOH, salicylic acid, or o-, m-, or p-C₆H₄(OH)₂. Et 3-aldehyde-2:4-dimethylpyrrole-5-carboxylate gives compounds with CH₃ClCO₂H, m.p. 74.5°, salicylic acid, m.p. 135°, picric acid, m.p. 97°, and o-, m.p. 114°, and m-C₆H₄(OH)₂, m.p. 111°, all of type AB, and of type AB₂ with p-C₆H₄(OH)₂, m.p. 142°; no compound with BaOH. Et 4-aldehyde-2:5-dimethylpyrrole-3-carboxylate gives compounds with salicylic acid, AB₂, m.p. 111.5°, and AB₂, m.p. 111°, and m-, m.p. 98°, and p-C₆H₄(OH)₂, m.p. 117.5° (type AB), but not with o-C₆H₄(OH)₂. Constitution

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ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION

1380H 20H177

1380H 20H177

1380H 20H177

LEZNOV N. 3.

New resins. Allyl esters of dibasic acids. D. A. Kargin, N. S. Leznov, and V. P. Nuzhdina. *Khimicheskaya Prom.* 1945, No. 2, 5-6. This is a preliminary report on diallyl esters of dibasic acids. The characteristics of the esters are:

	b. p.	Yield % of theor. cal.	Index of refrac- tion at 20°	Ester con- tent %	Sapon. no.	Free acid con- tent %
fumarate	110-5	76.5	1.4739	99.31	566.60	0.11
maleate	109-10	88.0	1.4773	98.93	565.3	0.30
oxalate	85-6	50.0	1.4582	1.4481		
succinate	103	80.1	1.4590	1.4510	97.18	519.8
adipate	126-0	87.4	1.4235	1.4540	98.09	490.6
sebacate	145	85.2	1.4005	1.4548	98.26	433.3
suberate	103	80.1	0.9755	1.4511	97.91	388.8
phthalate	164-5	79.7	1.4296	1.5293	99.00	151.1

The oxalate saponified in the cold even with dil. alkalis so that its ester content could not be detd. Adipic, sebacic, and phthalic acids yielded monoesters along with diesters. The esters are transparent, colorless, low-viscosity liquids having a faint characteristic odor and sol. in alc., acetone, benzene, acetates, and to a lesser extent in

chlorohydrocarbons. They are insol. in H₂O and benzene. With the exception of the oxalate they kept well for several months. The esters polymerized in the presence of benzoyl peroxide and formed gels. Rate of polymerization depended on the temp. and quantity of catalyst. On further heating, the gels were transformed into hard glassy products. The oxalate did not polymerize. The fumarate and maleate polymerized faster than the other esters. The polymerization end products are colorless hard glasses, sp. gr. approx. 1.3, contain up to 95% of polymer, and are practically insol. in any of the common solvents either cold or boiling. They undergo no significant changes up to 200°. It is justified to assume that the polymers are tridimensional macromols. Their presence retards polymerization. Copolymerization with, e.g., methyl methacrylate yields a product of limited soly. and enhanced heat resistance.

M. Hosen

LEZNOV, N. S., Engr. Cand. Tech. Sci.

Dissertation: "Synthesis of Triallyl Esters of Tribasic Acids and Their Polymerization."
Moscow Inst of Chemical Machine Building, 19 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

USSR.

Allyl esters of tribasic acids and their polymerization.
1. Preparation and comparative polymerization of triallyl esters. B. N. Rutovskii and N. S. Lermov. *Zhur. Priklad. Khim.* (J. Applied Chemistry) **1969**, 42, 1019. The triallyl esters were prep'd. from allyl alc. and the corresponding acids by azeotropic removal of H₂O by CaH₂, refluxing with catalytic amts. of H₂SO₄; a usual water trap was used to follow the reactions. Boric acid (31 g.), 104.5 g. CH₃CH₂CH₂OH and 40 ml. C₆H₆ gave, in 8-10 hrs. 94-95% triallyl borate, b_p 52-53°, d₄²⁰ 0.918; similarly acetic acid gave 83% triallyl acetate, b_p 130°, d₄²⁰ 1.111, n_D²⁰ 1.4855, while tricarballic acid (prep'd. from di-Et malate by condensation with CH₃(CO₂Et)₃, followed by decarboxylation-hydrolysis with 20% HCl) similarly gave 87% triallyl ester, b_p 180-1°, d₄²⁰ 1.094, n_D²⁰ 1.4660. Itaconic anhydride was converted to the di-Et ester in 78-84% yields by refluxing with EtOH in C₆H₆, and the ester, upon condensation with CH₃(CO₂Et)₃ and subsequent hydrolysis and decarboxylation, gave 1,2,3-butanetricarballic acid, m. 110°, which yielded 74% tri-Et ester, b_p 163-4°, d₄²⁰ 1.0828, n_D²⁰ 1.4672. Hydrolysis of HOCH₂CH₂CN with aq. HBr and esterification with EtOH, followed by condensation with CH₃(CO₂Et)₃, gave (EtO₂C)₂CHCH₂CO₂Et, yielding, upon condensation with BrCH₂CH₂CO₂Et, hydrolysis, and decarboxylation, 1,3,5-pentanetricarballic acid, m. 107-108°, (from 10% HCl), which gave 84% tri-Et ester, b_p 177°, d₄²⁰ 1.0714, n_D²⁰ 1.4087. The esters were polymerized in ampuls with 0.5-1.0% Br₂O₃ at 60° and 100°, and the insol. polymers det'd. by estn. with C₆H₆. These were glassy infusible solids, except for the borate, which refused to polymerize completely. The results are given graphically, for expts. of 140-150 hrs. duration. The triallyl allylate gave almost 100% yields at 60°. The triallyl borate gave progressively poorer yields of insol. polymers, with the latter ester giving but 50% yields under optimum conditions. The poorer yields obtained at 100° (some 25% drop in most cases) can be remedied by a slow addn. of Br₂O₃, which keeps up the initiator concn., while addn. of the entire amt. in the beginning leads to excessive loss of the catalyst in the initial stages of polymerization.

G. M. Kossolapoff

CA

Polymerization of the triallyl ester of tricarballic acid and investigation of the polymerization products. B. N. Rutovskii and N. S. Lermov. *Zhur. Priklad. Khim.* (J. Applied Chem.) 22, 1008-13 (1949); cf. C.A. 44, 1007d. —In polymerization in sealed tubes, with 0.5 or 1% Bz_2O_2 , at 60 and 100°, the 1st product formed is a polymer sol. in the monomer, and which can be isolated and detd. by pptn. with $MeOH$. The amt. of this sol. product increases with time until it reaches 25% of the initial monomer, and that fraction is independent of the temp. or of the amt. of initiator. The final insol. polymer is evidently formed from the sol. product. This follows from kinetic curves which show, at the initial stage of gelatinization, fast increase of the rate of formation of the insol. product, through transformation of the accumulated sol. form; the rate then falls off, limited as it is by the rate of formation of the sol. form, and finally comes to a halt, as the rate of formation of the sol. form lags behind its conversion to the insol. polymer. On completion, the sol. form has disappeared altogether. The polymer sol. in the monomer is also sol. in hydrocarbons, chlorinated hydrocarbons, ketones, esters, etc. The double-bond content is 62-63%, as compared with 60.6% expected for a strictly linear polymer. Consequently, the sol. form is essentially a linear polymer, with some branching. The viscosity of a 1% soln. in CH_2Cl_2 is independent of the stage at which the sample is taken; consequently the increase with time of the viscosity of the liquid is simply due to increasing concn. of the sol. polymer. On heating, it loses its sol., the faster the higher the temp.; while at 25° there is some loss of sol.

after 2-3 days, practically all solv. disappears within a few min. at 100°. This indicates that the transformation of the sol. form into the insol. product is purely thermal, and does not involve interaction with the monomer. On sapon., only about 20-28% of the amt. calcd. by the amt. of double bonds, can be recovered; this discrepancy is evidently due to the fact that, in the course of sapon., part of the linear sol. polymer is converted into the spatial insol. product, in which process double bonds are expended. This was confirmed by blank expts. in which the sol. form was heated with pure H_2O . The insol. polymer can be completely sapond. by alc. KOH in 3 hrs. From the sapon. mixt., $EtOH$ exts. polyallyl alc., completely sol. in H_2O ; acetylation with Ac_2O in CH_2Cl_2 converts it into polyallyl acetate, sol. in org. solvents but not in H_2O .
N. Thon

PA 193T19

LEZNOV, N. S.

USSR/Chemistry - Silicon Compounds Nov/Dec 51

"Liquid Organic Polysiloxanes," A. V. Topchiev,
N. S. Leznov, N. S. Nametkin, Moscow

"Uspekhi Khim" Vol XX, No. 6, pp 714-733

Reviews the subject in detail. Out of 19 references listed in the bibliography, 3 are Russian and the rest American.

193T19

(CA 48 no.1: 397 '54)

LEZNOV, N. S.

✓ Reactions of (chloromethyl)methylcelthoxysilane with
sodioacetacetic and sodiomalonate esters. K. A. An-
drianov, N. S. Leznov, and Ya. I. Mindlin. *Doklady*
Akad. Nauk S.S.S.R. 94, 237-9(1951). $\text{--ClCH}_2\text{SiMe}_2\text{Cl}$
(490.5 g.) was added at 1-2°, initially, and at 40° near
the end of addn., to 317 g. abs. EtOH; after 3.5 hrs. below
45°, the mixt. yielded 400 g. $\text{ClCH}_2\text{SiMe}_2(\text{OEt})_2$ (1). b_p 160-1°,
 d_4 0.997, n_D^{20} 1.414. To 18.3 g. Na in 260 ml.
abs. EtOH was added 253 g. $\text{CH}_2(\text{CO}_2\text{Et})_2$; then 145 g. I,
the mixt. stirred 12 hrs. on a steam bath, and when the
reaction was complete (neutral soln. attained) the ppt.
was sepd., washed with Et₂O, and the washing combined
with the org. layer, concd., filtered, and distd., yielding
an unstated amt. of $(\text{EtO})_2\text{CHCH}_2\text{SiMe}_2(\text{OEt})_2$, b_p 131-
2°, d_4 1.0292, n_D^{20} 1.4270, $b.$ 270° (without decompn.).
Similarly, addn. of 280 g. $\text{AcCH}_2\text{CO}_2\text{Et}$ to 46 g. Na in 1 l.
abs. EtOH, followed by 400 g. I added at gentle reflux, and
the mixt. boiled about 10 hrs. until the reaction was com-
plete gave 230 g. $\text{AcCH}(\text{CO}_2\text{Et})\text{CH}_2\text{SiMe}_2(\text{OEt})_2$, b_p 105-7°,
 d_4 0.9744, n_D^{20} 1.4210.
G. M. Kosolapoff

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(3)
10832* Chlorination of Dimethyldichlorosilane and Hexamethyldisiloxane. (Russian.) K. A. Andrianov, Ia. I. Mindlin, and N. S. Leznov, *Doklady Akademii Nauk SSSR*, v. 94, no. 5, Feb.-II, 1964, p. 873-875.
Physical and chemical characteristics of reaction products.
Table, diagram. 3 ref.

11-8-5-1

EE=NOV, N-5

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5(3)

SOV/79-29-4-51/77

AUTHORS:

Leznov, N. S., Sabun, L. A., Andrianov, K. A.

TITLE:

Polydiethylsiloxane Liquids (Polidietilsiloksanovyye zhidkosti).
I. The Effect of Sulphuric Acid on Diethyldiethoxysilane and
Its Mixtures With Triethylethoxysilane (I. Deystviye sernoy
kisloty na dietildietoksisilan i yego smesi s trietiletoksi-
silanom)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1270-1275
(USSR)

ABSTRACT:

In the paper under review the authors give data concerning
their work during 1947 in the field of the preparation of
liquid polydiethylsiloxanes from diethyldiethoxysilane and its
mixtures with triethylethoxysilane. It was the objective of
this work to synthesize polymeric liquids free from impurities
of those polymers which contain ethoxy groups in the molecule.
The hydrolysis of diethyldiethoxysilane in an aqueous medium
at 100° resulted in the formation of the diethyldioxy- and
oxyethoxysilanes which, in turn, were transformed into poly-
diethylsiloxanes of cyclic and normal structures (Scheme I).
Under different conditions the formation of polymers containing

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Polydiethylsiloxane Liquids. I. The Effect of Sulphuric Acid on Diethyldiethoxysilane and Its Mixtures With Triethylethoxysilane

the ethoxy group (b) in the molecule could not be avoided. The synthesis of polydiethylsiloxanes free from ethoxy groups on the basis of the hydrolysis products of diethyldiethoxysilane was carried out by means of a reaction with 93-100% sulphuric acid at 20-50° as well as with 95-99% formic- or acetic acid at 60-100° according to scheme (II). When sulphuric acid was used the fractional composition of polydiethylsiloxanes changed abruptly toward the formation of polymers of a higher average molecular weight (Scheme III). The carboxylic acids did not cause a regrouping of the cyclic polymers (Scheme II, Table 1). On the basis of what has been reported so far it was possible to assume that the synthesis of polydiethylsiloxanes free from polymeric impurities containing ethoxy groups in the molecule by the action of concentrated acids (esp. sulphuric acid) upon diethyldiethoxysilane follows the general scheme (IV)

$$(C_2H_5)_2Si(OC_2H_5)_2 + 2H_2SO_4 \rightarrow [(C_2H_5)_2SiO]_x + 2C_2H_5OSO_3H + H_2O \text{ (IV)}$$

This assumption was confirmed by experiments. Thus, ethyl sulphuric acid and cyclic polydiethylsiloxanes free from normal polymers with ethoxy groups in the molecule were ob-

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Polydiethylsiloxane Liquids. I. The Effect of Sulphuric Acid on Diethyldiethoxysilane and Its Mixtures With Triethylethoxysilane

tained (98% yield). The investigation of the influence of various factors upon the process and composition of the resulting polydiethylsiloxanes made it possible to illustrate the main transformations in the schemes (V), (VI), (VII), and (IX), which was also confirmed experimentally. There are 4 tables.

SUBMITTED: March 10, 1958

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5 (3)

AUTHORS:

Leznov, N. S., Sabun, L. A.,
Andrianov, K. A.

SOV/79-29-4-52/77

TITLE:

Polydiethylsiloxane Liquids (Polidietilsiloksanovyye zhidkosti).
II. The Effect of Phosphoric- and Boric Acid on Diethyldiethoxy-
silane and Its Mixtures With Triethylethoxysilane (II. Deystviye
fosfornoy i bornoy kislot na dietildietoksisilan i yego smesi s
trietiletoksisilanom)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1276 - 1281
(USSR)

ABSTRACT:

In continuation of the preceding paper (ZOC 1959, 29, 1270) the
data concerning the reactions of phosphoric- and boric acid
with ethylethoxysilanes are described in the present article.
It was shown that, like sulphuric acid, phosphoric acid react-
ing with diethyldiethoxysilane results in a formation of poly-
diethylsiloxanes free from impurities of normal polymers with
ethoxy groups in the molecule, and in the formation of acid
ethyl phosphates. This formation is brought about at a molar
ratio of diethyldiethoxysilane to the acid of 3:2 up to 1:2.
There was no neutral ester to be found in the reaction products.
In contrast with the reaction of diethyldiethoxysilane with

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Polydiethylsiloxane Liquids. II. The Effect of Phosphoric- SOV/79-29-4-52/77
and Boric Acid on Diethyldiethoxysilane and Its Mixtures
With Triethylethoxysilane

sulphuric acid (Scheme I) the reaction with phosphoric acid exhibits an intermediate stage in which polydiethylsiloxane phosphates form, which are stable in the middle of the reaction according to scheme (II). If water influences the reaction product, a hydrolysis of the phosphates accompanied by the separation of polydiethylsiloxanes and acid ethyl phosphates takes place according to schemes (III) and (IV). It proved impossible to remove the polydiethylsiloxane phosphates since the distillation of the reaction material resulted in their decomposition. Their presence was proved in three ways. The data obtained support the assumption that two kinds of polydiethylsiloxane phosphates are present in the reaction product (Scheme II). In the hydrolysis (Scheme III) it may be seen that polydiethylsiloxane phosphates exhibit a polymeric grouping as soon as the acid ethyl phosphate is split off. A further condensation results in non-distillable polymers of high molecular weight. In this hydrolysis (Scheme IV) individual polymer components, the cyclization of which results in low-boiling products, liberate themselves. The effect of phosphoric acid on a mixture of diethyl-

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Polydiethylsiloxane Liquids. II. The Effect of
Phosphoric- and Boric Acid on Diethyldiethoxysilane
and Its Mixtures With Triethylethoxysilane

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diethoxysilane and triethylethoxysilane follows scheme (V), as
is also the case with sulphuric acid. The reaction with boric
acid in place of phosphoric acid takes place in the same way
(Schemes VIII and IX). The fractional compositions of the poly-
mers obtained by the reactions of both acids are similar. There
are 3 tables.

SUBMITTED: March 10, 1958

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5 (3)

AUTHORS:

Loznov, G. S., Sabun, L. A.,
Andrianov, K. A.

SOV/79-29-5-23/75

TITLE:

Polydiethyl-siloxane Liquids (Polidietilsiloksanovyye zhidkosti). 3. Effect of Carboxylic Acids Upon Diethyl-ethoxy-silane (3. Deystviye karbonovykh kislot na dietildietoksisilan)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 5,
1508-1514 (USSR)

ABSTRACT:

The present paper supplies data of the reactions of diethyl-diethoxy-silane with mono- (Table 2) and dicarboxylic acids (Table 3). The investigation of these reactions indicated that on heating of monocarboxylic acids (formic, acetic, chloroacetic, propionic and n-butyric acid) with diethyl-diethoxy-silane up to 66-120° polydiethyl-siloxanes (up to 98 %) and ethyl esters of the corresponding acids (up to 80 %) are formed. Cyclic polydiethyl-siloxanes, without linear polymers with ethoxy-groups in the molecule can be obtained if excess acid is used in the reaction. The latter depends on the acid concentration and its dissociation constant and decreases with an increase in the latter (Table 1). The reaction rate

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Polydiethyl-siloxane Liquids. 3. Effect of
Carboxylic Acids Upon Diethyl-ethoxy-silane

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of the carboxylic acids with diethyl-ethoxy-silane depends on the strength of the acid and increases with its increasing strength (Fig). Polydiethyl siloxanes formed in the reactions of monocarboxylic acids with diethyl-ethoxy-silane are practically completely distilled off up to 200° (1 mm). Their fractional composition depends, in contrast with the polydiethyl-siloxanes formed in reactions of silicic acids with diethyl-diethoxy-silane, neither on the nature nor on the quantity or configuration of the acid. The investigation of the reactions of diethyl-diethoxy-silane with dicarboxylic acids (oxalic, succinic, adipic and maleic acid) indicated the same laws as with monocarboxylic acids. In a similar way as in reactions with monocarboxylic acids traces of sulfuric acid accelerate the course of reaction and permit the reduction of the excess acid desirable for the formation of polydiethyl-siloxanes. The fractional composition of the polydiethyl-siloxanes is similar to the composition of those which are formed in the reaction with monocarboxylic acids and is also independent of the nature of the acid. It may be

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Polydiethyl-siloxane Liquids. 3. Effect of Carboxylic Acids Upon Diethyl-ethoxy-silane SOV/79-29-5-23/75

concluded from this that polydiethyl-siloxanes are stable against the effect of carboxylic acids. There are 1 figure, 3 tables, and 2 Soviet references.

SUBMITTED: March 10, 1958

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5 (3)

AUTHORS:

Leznov, N. S., Sebnun, L. A., Andrianov, K. A., SOV/79-29-5-24/75

TITLE:

Polydiethyl-siloxane Liquids (Polidietilsiloksanovyye zhidkosti). 4. Effect of Aldehydes and Acetone on Diethyl-diethoxy-siloxane (4. Deystviye al'degidov i atsetona na dietildietoksisilan)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1514-1518 (USSR)

ABSTRACT:

The authors found that on the interaction of diethyl-diethoxy-silane with aqueous aldehyde solutions the latter do not take part in the reaction and that the process results in the hydrolysis of the diethyl-diethoxy-silane. Anhydrous aldehydes and acetone are completely passive in the absence of catalysts with respect to diethyl-diethoxy-silane. Irrespective of the time of heating of the reaction mixture neither polydiethyl siloxanes nor acetals could be detected in the reaction products. When using mineral acids hydrochloride and its solutions were not found to cause any interaction between aldehydes and diethyl-diethoxy-silane. Sulfuric acid, however, effects in amounts of 0.1-0.2 % the formation of polydiethyl

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Polydiethyl-siloxane Liquids. 4. Effect of Aldehydes and Acetone on Diethyl-diethoxy-siloxane

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siloxanes and corresponding acetals. In the investigation of the reaction of diethyl-diethoxy-silane with formaldehyde (paraform) a prolonged time of heating was found to cause the formation of a polydiethyl-siloxane mixture with a higher content of ethoxyl groups. By the influence of diethyl formal and alcohol upon polycyclic polydiethyl-siloxanes treated with sulfuric acid a polydiethyl-siloxane mixture with 5-4 % ethoxyl groups was obtained. Acetone and diethyl-diethoxy-silane reacted in the presence of sulfuric acid traces and a polydiethyl-siloxane mixture was formed. Ketal, however, was not found in the reaction products. In addition to polydiethyl-siloxanes the reaction product contained alcohol and a considerable quantity of soluble resins which were formed owing to the condensation of acetone and probably also of ketal. Since these resins are dissolved by solvents such as polydiethyl-siloxane they could not be isolated. The distillation in vacuum accompanied by decomposition. Table 1 - interaction of diethyl-ethoxy-silane with paraform, table 2 - the same with paraldehyde. There are 2 tables

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Polydiethyl-siloxane Liquids. 4. Effect of Aldehydes
and Acetone on Diethyl-diethoxy-siloxane

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and 3 Soviet references.

SUBMITTED: March 10, 1958

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5 (3)

AUTHORS:

Leznov, M. S., Sabun, L. A.,
Andrianov, K. A.

SOV/79-29-5-25/75

TITLE:

Polydiethyl-siloxane Liquids (Polidietilsiloksanovyye zhidkosti). 5. On the Reaction Mechanism of Diethyl-diethoxy-silane With Acetic Acid (K voprosu o mekhanizme reaktsii dietildietoksisilana s uksusnoy kislotoy)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 5,
pp 1518-1522 (USSR)

ABSTRACT:

On investigation of the reaction of diethyl-diethoxy-silane with acetic acid it was found that the elimination of the ethyl acetate being formed from the reaction mixture considerably reduces the rate of the reaction in which connection the reaction product is enriched by polydiethyl-siloxanes with linear polymers having ethoxy groups on the ends of the molecular chain. In order to define the chemism of the initial state of the reaction, experiments in toluene medium on continuous distillation of volatile reaction products were carried out. Polydiethyl-siloxanes and ethyl acetate were not found to be formed. Diethyl-diethoxy-silane and the unchanged diethyl-diethoxy-silane were found in the

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Polydiethyl-siloxane Liquids. 5. On the Reaction
Mechanism of Diethyl-diethoxy-silane With Acetic Acid

SCV/79-29-5-25/75

reaction products. The free alcohol was detected in the condensate. Further reactions of anhydrous alcohols with diethyl-diacetoxy-silanes were investigated. It was found that by heating of methyl, ethyl and n-butyl alcohol with diethyl-diacetoxy-silane the corresponding acetates and polydiethyl-siloxane mixtures were formed. In the presence of traces of sulfuric acid the latter are formed at room temperature. The chemical composition of these polydiethyl-siloxanes exhibits in addition to cyclic polymers also linear polymers with alkoxy groups up to the end atoms of silicon. Heating of diethyl-dioxy-silane in xylene results in a complete elimination of water with polydiethyl-siloxanes being formed. The chemical analysis and the physical constants of the latter are indicative of their cyclic structure. Heating of diethyl-dioxy-silane in anhydrous alcohol yields a polymeric mixture in which linear polymers with ethoxy groups were detected. The amount of these groups is determined by the acidity of the medium. On dehydration of diethyl-dioxy-silane in alcohol with traces of sulfuric and acetic acid 3.58 and 5.47 % ethoxy groups were

Card 2/3

Polydiethyl-siloxane Liquids. 5. On the Reaction
Mechanism of Diethyl-diethoxy-silane With Acetic Acid

SOV/79-2-5-25/86

found. In the absence of these acids their quantity was not more than 2 %. It was proved experimentally that on reaction of diethyl-diethoxy-silane with diethyl-diethoxy-silane in the presence of ethyl-sulfuric or sulfuric acid cyclic polydiethyl siloxanes and ethyl acetate are formed. Table 1 - content of diethoxy-diethyl-silane in the reaction products of diethyl-diethoxy-silane with acetic acid. Table 2 - reaction of alcohols with diethyl-diethoxy-silane. There are 2 tables.

SUBMITTED: March 10, 1956

Card 3/3

S/661/61/000/006/036/031
D202/D302

AUTHORS: Alashkevich, M. L., Leznov, N. S., Yumakova, A. Ye. and
Andrianov, K. A.

TITLE: Physico-mechanical properties of linear polydiethylsi-
loxanes

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganichskikh
soyedineniy; trudy konferentsii. no. 6: Doklady, diskus-
sii, resheniye. II Vses. konfer. po khimii i prakt. prim.
kremneorg. soyed., Len., 1958. Leningrad, Izd-vo AN SSSR,
1961, 171-172

TEXT: A supplement to a previous report in no. 2, p. 20, of this
publication. The authors compare the properties of polymethyl-phe-
nyl-siloxanes with those of polydiethyl-siloxanes used as high-vac-
uum pump fluids. No experimental details are given. It was found
that the first compounds have marked advantages over the second,
although cyclic polymers, formed during their synthesis, unfavorably
affect the thermal stability of both. ✓

Card 1/1

37766
S/661/61/000/006/052/031
D235/D302

5.3700

AUTHORS: Mindlin, Ya. L., Leznov, N. S. and Andrianov, K. A.

TITLE: Synthesis of polymethyl-siloxanes with hydroxyl groups in the organic radical

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh sovedineniy; trudy konferentsii, no. 6: Doklady, diskussii, resheniye. II Vses. konfer. po khimii i prakt. prin. kremneorg. soved., Len. 1958. Leningrad, Izd-vo AN SSSR, 1961, 224-226

TEXT: A supplement to the above paper (this publication, no. 2, p. 127). The authors report on the exceptional antifoam properties of poly-methyl-siloxanes with a hydroxyl group in the organic radical. Such a compound depresses foam formation during fermentation of a number of antibiotics and the expenditure of the antifoam agent is only a hundredth or thousandth part of a percent of the volume of the fermentation medium. Such an antifoam agent, containing 5% hydroxyl groups, in the form of a 10 - 15% solution in white spirit

Card 1/2

SOLODOVNIK, V.D.; DAVYDOV, A.B.; IVANOVA, Z.G.; MINDLIN, Ya.I.;
LEZNOV, N.S.

Properties of and the possibility of using organoborosilicon
polymers as components of heat-resistant adhesives. Plast.
massy no.3:39-42 '63. (MIRA 16:4)

(Adhesives) (Silicon organic compounds)
(Boron organic compounds)

L 1974h-65 EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EPR/ENP(j)/T/ENP(b) Pc-4/Pq-4/Pr-4/
Ps-4/Pt-10 ESD(gs)/ESD(t) WW/RM/WH/MLK
ACCESSION NR: AT4049865 S/0000/64/000/000/0260/0264

AUTHOR: Zherdev, Yu. V., Korolev, A. Ya., Leznov, N. S.

TITLE: The effect of fillers on the curing of silicone resins

SOURCE: Khimicheskiye svoystva i modifikatsiya polimerov (Chemical properties and the modification of polymers); sbornik statey. Moscow, Izd-vo Nauka, 1964, 260-264

TOPIC TAGS: silicone, silicoorganic resin, silicone hardening, filler, silicone thermo-mechanical property, thermal degradation, polyphenylmethylsiloxane, carbon black, zinc oxide, lead oxide, glass fiber.

ABSTRACT: Determination of the thermomechanical properties of thermally treated polyphenylmethylsiloxanes proved that zinc or lead oxide and particularly ferric oxide markedly inhibit curing at 120-200C, whereas white carbon black and to a lesser degree "alkaline-free" glass fiber accelerate the process of curing. In tests of thermal stability at 400C white carbon black was also shown to act as a stabilizer. The accelerating effect of glass fiber on curing improved after thermal pretreatment at 400C, and its activity was shown to be related to surface effects and the presence of traces of alkali. The widely different effects of the fillers studied do not generally depend on the pH of aqueous extracts, since all extracts had a pH of 6.6-6.8 except that of glass fiber with pH 8.6. The resins were

Card 1/2

L 19744-65

ACCESSION NR: AT4049865

tested with 50% filler after curing for 2 hrs. or longer at 120 and 150C, pressing for 10 min. under 300 kg/cm², and also after additional curing at 150-200C. Testing loads were 4.3 kg/cm². at temperatures up to 400C. Addition of 1-5% epoxide resin⁵ to the fillers and formation of a thin film, less than 0.1μ thick, on the filler surface eliminated the inhibitory x effects of zinc, lead, or ferric oxides. Tests on the thermal decomposition of filled and non-filled resins showed that glass fiber, zinc oxide, and particularly lead oxide promote thermal breakdown, whereas ferric oxide and white carbon black act as stabilizers. The observed effects with various compounds are discussed and related to published theories and/or experimental results. Orig. art. has: 2 figures.

ASSOCIATION: None

SUBMITTED: 20Jun63

ENCL: 00

SUB CODE: MT

NO REF SOV: 009

OTHER: 009

Card

2/2

L 35470-65 EPA(s)-2/FWT(m)/EPF(c)/EPR/EMP(j)/T Pc-4/Pr-4/Ps-4/Pt-10 WW/DJ/RM
ACCESSION NR: AP4046896 S/0191/64/000/010/0016/0019 4/6
44
B

AUTHOR: Zherdev, Yu. V.; Korolev, A. Ya.; Leznov, N. S.

TITLE: Effect of different hardening catalysts on the thermo-oxidative degradation of polyorganosiloxanes

SOURCE: Plasticheskiye massy, no. 10, 1964, 16-19

TOPIC TAGS: polyorganosiloxane, siloxane, thermal degradation, oxidative degradation, depolymerization catalyst, tin diethyldicaprylate, polyethyl aluminosiloxane, potassium hydroxide, potassium acetate, sulfuric acid, ammonium acetate

ABSTRACT: The thermal degradation of polyorganosiloxanes was investigated in the presence of different catalysts, such as KOH, CH_3COOK , $\text{CH}_3\text{COONH}_4$, H_2SO_4 , tin diethyldicaprylate and polyethylaluminosiloxane. The resin $(\text{CH}_3)(\text{C}_6\text{H}_5)_2(\text{SiO}_3/2)_3$ had an average molecular weight of about 900 and contained about 2% reactive groups (OH, etc.). The effect of the type and concentration of catalyst on the content of organic groups in the polyorganosiloxane was investigated after thermo-oxidative degradation at 400C for 220 hours by determining the weight loss of the sample. The experimental data are plotted and tabulated. The carbon content and

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37766

S/661/61/000/006/052/031
D235/D302

5.3700

AUTHORS: Mindlin, Ya. L., Leznov, N. S. and Andrianov, K. A.

TITLE: Synthesis of polymethyl-siloxanes with hydroxyl groups
in the organic radical

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh
soyedineniy; trudy konferentsii, no. 6: Doklady, diskus-
sii, resheniye. II Vses. konfer. po khimii i prakt. prim.
kremneorg. soyed., Len. 1958. Leningrad, Izd-vo AN SSSR,
1961, 224-226

TEXT: A supplement to the above paper (this publication, no. 2,
p. 127). The authors report on the exceptional antifoam properties
of poly-methyl-siloxanes with a hydroxyl group in the organic radi-
cal. Such a compound depresses foam formation during fermentation
of a number of antibiotics and the expenditure of the antifoam agent
is only a hundredth or thousandth part of a percent of the volume
of the fermentation medium. Such an antifoam agent, containing 5%
hydroxyl groups, in the form of a 10 - 15% solution in white spirit

Card 1/2

Synthesis of polymethyl-....

S/661/61/000/006/052/031
D235/D302

has negligible toxicity and has been successfully used in an artificial heart-lung machine. The paper is discussed by Ya. I. Mindlin, A. L. Klebanskiy (VNIISK, Leningrad), I. F. Ponomarev, T. A. Krasovskaya (Moscow) and P. V. Dvydov (Moscow). The following points are discussed: Relationship between properties of the polymer and the number of hydroxyl groups; the effect of such an anti-foam agent on the blood; antifoam properties of other organo-silicon compounds. The lower the percentage of hydroxyl groups the greater the stability of the polymer; compounds containing 4 - 5% hydroxyl groups condense together more quickly than those containing only 2%. Dehydration in the blood does not lead to an increase in the toxicity of the substance and the amount of silicon remaining in the blood is negligible. Other antifoam agents based on methyl-acetoxy-silane are 70 - 80 times more effective than vegetable and animal oils, but in the artificial heart-lung machine a more effective antifoam agent must be used.

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L 35470-65

ACCESSION NR: AP4046896

2

the $C_6H_5:Si$ ratio were calculated, and for some samples the microelemental analysis of the H/C ratio was also carried out. It was found that the thermo-oxidative degradation of the resin without a catalyst leads to weight loss exceeding even the theoretically possible losses obtained by the combustion of the entire organic part of the resin. The process of degradation is accelerated considerably by potassium hydroxide and acetate. The data obtained with inorganic catalysts tin diethyldicaprylate and organosilicon compounds are plotted and discussed in detail. Interesting results were obtained with tin compounds. The addition of tin diethyldicaprylate to polyorganosiloxane and other polymers improved their thermal stability and also accelerated hardening. Tin diethyldicaprylate is most suitable when added in 20% tetraethoxysilane solution. The effect of tetraethoxysilane and tetramethoxysilane on the thermal degradation was also investigated by weight loss. The weight loss data at 400C show that their addition affects the thermo-oxidative degradation to a certain extent. Hydroxides and salts of alkali metals are very dangerous agents because they accelerate the oxidation of the polymer. The mechanism of action of these catalysts has not yet been clarified, but the experimental data show that the purity of the polyorganosiloxane has a significant effect on their activity at high temperatures.

Card 2/3

L 35470-65

ACCESSION NR: AP4046896

In order to study the final state of the resin after thermal degradation, infrared absorption spectra were taken before and after heating at 400C for 220 hrs. The most interesting bands were produced by the oscillation of the main polymer skeleton Si-O-Si. In the region of the valency oscillation of SiO at about 1100 cm⁻¹, in the spectra of both the initial resin and that hardened at 270C, two intensive bands appear with maxima at about 1050 and 1180 cm⁻¹. The different bands are compared with bands obtained for quartz glass and interpreted. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: None

SUBMITTED: 00

NO REF SOV: 008

ENCL: 00

SUB CODE: OC, MT

OTHER: 007

Card 3/3

8(5).
AUTHORS: Sovalov, S. A., Candidate of Technical Sciences, Leznov, S. I., Engineer, Smirnov, M. I., Engineer (Moscow) SOV/105-58-11-1/26

TITLE: Experimental Investigation of Power System Performance Characteristics (Eksperimental'noye issledovaniye rezhimnykh kharakteristik energosistemy)

PERIODICAL: Elektrichestvo, 1958, Nr 11, pp 1-7 (USSR)

ABSTRACT: This paper gives an account of the principal results of an experimental investigation carried out in summer 1957 (on 3 weekdays and on one Sunday) in the Ob'yedinnennaya energosistema Tsentra (Combined Power System of the Center). It covers: 1) An investigation of the frequency fluctuations in a non-controlled power system. It appeared that the irregular frequency fluctuations in a large power system are relatively small (not exceeding 0.2%) and that with a relatively stable load in the power system (this implies only slow frequency variations) the usual requirements placed upon frequency maintenance on a certain level are

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Experimental Investigation of Power System Performance
Characteristics

SOV/105-58-11-1/28

satisfied even without automatic control. 2) An investigation of the frequency fluctuations with automatic frequency control, even with the help of a relatively powerful station, does practically not at all reduce the amplitude of irregular fluctuations. In some instances, in particular on Sundays and during night hours such fluctuations became apparent in a much higher degree in an automatically controlled system than in a system without control. 3) Examinations of the total load variations in a power system. This study showed that the load varies very irregularly. When the load showed a general tendency to rise, it suddenly dropped back and vice versa. 4) The resulting static behaviour of all units of the power system, except of those of the Volzhskaya GES (Volga Power Station) remained within the limits of 8-10%. 5) A determination of the slope of the static frequency versus load characteristic. It was found that the voltage in the 110 kV-grid of the Moskovskiy uzel (Moscow Power Center) on the average

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Experimental Investigation of Power System Performance Characteristics SOV/105-58-11-1/28

varies by 1-2% if the frequency varies by 1%. This is true of the Moscow Power Center, of the Verkhnevolzhskiy energosistem (Upper Volga Power System), and of the 400 kV bus bars of the substations. The following persons assisted in the organization of the work and were engaged in the investigation: K.T.Nakhapetyan, V.T.Kalita, V.K.Meshkov, S.S.Shlopak, Ye.M.Malikova, M.D.Kuchkin, I.N.Popov, V.M.Cornshteyn. I.M.Markovich advanced valuable suggestions. There are 7 figures, 5 tables, and 2 references, 1 of which is Soviet.

SUBMITTED: August 6, 1958

Card 3/3

YERMILOV, Aleksey Alekseyevich; LEZNOV, S.I., red.

[Electric-power supply of industrial enterprises]
Elektrosnabzhenie promyshlennykh predpriatii. Mo-
skva, Energiia, 1965. 91 p. (Biblioteka elektro-
montera, no.161) (MIRA 18:7)

LEZNOV, S.I., inzh.; SOVALOV, S.A., kand. tekhn. nauk

Change in consumer loads with frequency deviations. Prom. energ. 19
no.11:10-15 N '64. (MIR:18:1)

LUK'YANOV, Tikhon Petrovich; GERR, A.D., retsenzent; ARTSYSHEVSKIY,
L.I., retsenzent; BIKKENIN, I.Kh., retsenzent; LEZNOV, S.I.,
nauchnyy red.; FAYERMAN, A.L., red.; TOKER, A.M., tekhn.
red.

[Adjustment of electrical systems] Naladka elektroustanovok.
Moskva, Proftekhizdat, 1962. 618 p. (MIRA 15:9)
(Electric apparatus and appliances) (Electric measurements)
(Electric engineering—Safety measures)

LEZNOV, S.I., inzh.

Automatic line for gas cutting of sheet steel. Mekh.1 avtom.-
proizv. 16 no.8:4-5 Ag '62. (MIRA 15:9)
(Gas welding and cutting)

LEZNOV, S.I.

Automatic line for gas cutting of sheet steel. Biul.tekh.-ekon.-
inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. no.11:45-47 '62.
(MIRA 15:11)
(Gas welding and cutting--Equipment and supplies)

L 1994-06

ACC NR: AP5026566

SOURCE CODE: UR/0286/65/000/019/0130/0131

AUTHORS: Balandin, I. Ya.; Leznov, S. I.; Zapol'skiy, I. S.; Len'kov, G. V.;
Goryachkin, V. Yu.; Kiseleva, Z. V.; Mironov, A. A.

ORG: none

TITLE: A mobile stand for assembly and welding of ship hull sections. Class 65,
No. 175406 /presented by Kherson Design and Construction Engineering Institute
(Khersonskiy proyektno-konstruktorskiy tekhnologicheskii institut)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 130-131

TOPIC TAGS: construction machinery, shipbuilding engineering

ABSTRACT: This Author Certificate presents a mobile stand for assembly and welding
of ship hull sections. The stand is made up of longitudinal framing beams carrying
transverse curved beams with vertically adjustable supports (see Fig. 1).

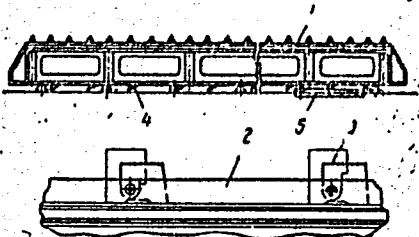


Fig. 1. 1- longitudinal framing beams;
2- transverse curved beams;
3- supports; 4- protruding teeth;
5- hydraulic cylinders

Card 1/2

UDC: 629.12.002.011:621.757:621.791

L 1994-06

ACC NR: AP5026566

APPROVED FOR RELEASE: Monday, July 31, 2000

CIA-RDP86-00513R000929

To facilitate the work setup for a continuously positioned method of fabricating
ship sections by mechanized assembly and welding technique, the longitudinal beams
of the stand carry protruding teeth on their lower surface. These teeth interact
with the bearings hinged to free ends of piston stems in the hydraulic cylinders of
the mechanism for moving the stand. Orig. art. has: 1 figure.

SUB CODE: IE/ SUBM DATE: 15Aug64

nw
Card 2/2

ACC NR: ⁴⁴AP5028536

SOURCE CODE: UR/0286/65/000/020/0130/0130

AUTHORS: ⁴⁴Balandin, I. Ya.; ⁵⁵Leznov, S. I.; ⁴⁴Zapol'skiy, I. S.; ⁵⁵Len'kov, G. V.;
⁴⁴Goryachkin, V. Yu.; ⁵⁵Rotov, V. S.; ⁴⁴Kiseleva, Z. V.; ⁵⁵Mironov, A. A.

ORG: none

TITLE: Multi-support stand. Class 65, No. 175838 [announced by Kherson Design and Construction Technological Institute (Khersonskiy proyektno-konstruktorskiy tekhnologicheskii institut)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 130

TOPIC TAGS: shipbuilding engineering, ship component, automation

ABSTRACT: This Author Certificate presents a multi-support stand with frame supports for placing of ship sections. To mechanize the placing of the supports under the ship sections, the frame supports are pivoted below the floor level and are kinematically connected to the push rod of a hydraulic cylinder which synchronously lifts the supports to a vertical position and lowers them to a horizontal position until the back sides of the supports are at floor level and form a flat platform (see Fig. 1).

Card 1/2

UNC: 629.12.002.011:621.757:621.791

Card 2/2

L 9792-66

ACC NR: AP5028536

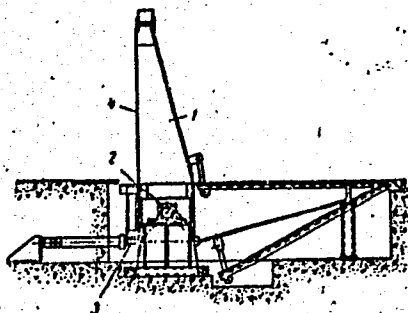


Fig. 1. 1 - Frame support; 2 - pivot;
3 - push rod; 4 - back side of
support.

Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 28Aug64

Card 2/2

LEZNOV, Ye.I.

Centrifugal casting of gear wheels with mast iron bushings.
Lit.proizv. no.7:39 J1 '62. (MIRA 16:2)
(Centrifugal casting)

LEZNOV, Ye.I.

Casting steel drums in half-chills. Lit.proizv. no.4:41 Ap '63.

(MIRA 16:4)

(Die casting)

LEZON, Mirosław

Technical and economic evaluation of hydromechanized systems
for the mining of thick coal deposits. Wiadom gorn 10 no.
7/8:238-242 J1-Ag '59.

LEZON, Mirosław

Experiments in hydraulic mining of coal deposits. Wiadom
gorn 11 no. 1/2:18-21 Ja-F '60.

LEZON, Mirosław

Mechanization of heading works and new methods and systems
of mining in the Soviet coal mining industry. Wiadom gorn
ll no. 7/8:229-235 J1-Ag '60.

S/145/61/000/010/001/008
D221/D304

AUTHORS: Mukhamedov, A. A., Candidate of Technical Sciences,
Lezov, A. P., Senior Scientific Worker, Vinnik, T.D.,
Senior Lecturer, and Rudyuk, S. I., Aspirant

TITLE: The effect of sulphiding on the wear resistance and
antifrictional characteristics of friction surfaces

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroy-
enie, no. 10, 1961, 37-44

TEXT: The article describes the results of investigations carried
out on the wear resistance of grey cast iron, steel and metallic-
ceramics. Various conditions of sulphiding, such as temperature
and media, were kept identical in all cases. The experiments con-
cerned valve pairs. The spools were made of 12XH3A (12KhN2A), 30
X1CA (30KhGSA) and 40X (40Kh) steel, the sleeve of 30KhGSA steel.
Parts of valves were subject to sulphiding after grinding. Those
made of 30KhGSA and 40Kh steel were treated in an ENIMS bath of
72% $K_4Fe(CN)_6$, 10% $Na_2S_2O_3$ and 18% of NaOH. During wear tests, use

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The effect of sulphiding ...

S/145/61/000/010/001/008
D221/D304

was made of АМГ-10 (AMG-10) fluid. The surface finish was checked by КВ-7 (KV-7) profilometer which indicated that the former did not change. The diameters were inspected in two perpendicular planes on a horizontal optimeter ИКГ (IKG), for the spool, and by a pneumatic instrument ППО-9М (PPO-9M) for the sleeve. The graphs of results show minimum wear in the non-sulphided spools; the greatest wear was found in sulphided steel 40Kh, and the least by 2KhN2A components. The wear of sleeves working with sulphided spools is reduced by half. The sulphided spools in 40Kh steel showed a sulphur-saturated layer. Some cyaniding takes place in the ENIMS bath due to the presence of CN. The publication of promising results on the increase of wear resistance of metalloceramics by sulphiding induced the Central Laboratory of the Tashsel'mash Factory and the Central Asian Polytechnic Institute to investigate this problem. Sulphiding was made by two methods; in sulphurous iron and annealing with S. The components were iron graphite bushes of various consistencies. Microscopic examinations revealed that the sulphur inclusions are uniformly distributed in the mass of the workpiece.

Card 2/4

The effect of sulphiding ...

S/145/61/000/010/001/008
D221/D304

with orientation around grains. The bushes were cut into rollers and turned in order to test them on friction, wear and running-in qualities. The anti-scuffing properties were determined by checking wear without lubrication. The graph of results indicates no reduction of wear due to sulphiding, when measurements were made with a passameter. Finally, tests were made for machinability determination, with simultaneous measurement of wear, by the method of Professor M. M. Krushchov. The results are tabulated, and they reveal that the sulphided components are run-in faster than the non-sulphided workpieces. The former also exhibit lower friction force and operate more steadily. The table demonstrates that the sulphur additive promotes greater wear which is contrary to previous investigations. Sulphiding may be recommended in cases where the main requirement is anti-scuffing property and not the wear resistance. There are 2 figures, 4 tables and 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: F. D. Waterfall, Reducing scuffing and wear of ferrous metals, Surface treatment by sulfidizing process. Engineering no. 4846, 1959, 197. ✓

Card 3/4

The effect of sulphiding ...

S/145/61/000/010/001/008
D221/D304

ASSOCIATION: Sredneaziatskiy politekhnicheskiy institut (Central
Asian Polytechnic Institute)

SUBMITTED: March 18, 1960

Card 4/4

26838

S/137/62/000/004/161/201

A060/A101

11710

AUTHORS: Iezov, A. P., Fedorenko, L. I.

TITLE: Some problems in heat-treatment of alloy steels after welding

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 11, abstract 4E49
("Tr. Sredneaz. politekhn. in-ta", 1961, no. 15, 116 - 121)

TEXT: An investigation was carried out as to the properties of the metal in the zone of thermal effect in steels 30XГCА and 30XГCНA (30KhGSA and 30KhGSNA) with the aim of choosing the best heat-treatment schedule after welding, under which the structure would possess high strength, sufficient ductility and would completely satisfy all the technical requirements. 5 mm thick steel sheets subjected to isothermal hardening prior to welding were used as specimens. After the hardening, some of the sheets were butt-welded and building up was carried out upon others. Some of the specimens were tested without tempering after the welding, and the remaining ones were subjected to tempering at various temperatures. Conclusions: 1) For welded bearing structures of steel 30KhGSA it is necessary to carry out a tempering at $520 \pm 10^{\circ}\text{C}$ after the welding. In the fabrica-

Card 1/2

Some problems in heat-treatment of...

S/137/62/000/004/161/201
A060/A101

tion of nonbearing parts, for which $\sigma_b \leq 80 \text{ kg/mm}^2$, the tempering need not be carried out after the welding. 2) For welded structures of steel 30KhGSNA a tempering at $300 \pm 10^\circ\text{C}$ is obligatory after the welding. 3) The tempering duration for welded structures of steels 30KhGSNA and 30KhGSA should not be less than 1 - 2 hours, since a reduction in the soaking time will not yield the maximum σ_b . 4) Tempering of welded structures of steel 30KhGSA and 30KhGSNA can be carried out at any time after the welding, but necessarily before putting the structure into service. 5) In choosing either steel 30KhGSA or 30KhGSNA for structures which may be subjected to repair by welding in the process of service, it is necessary to take into account the possibility of tempering after the welding.

V. Tarisova

[Abstracter's note: Complete translation]

Card 2/2

LEZOV, V., inzh.

Device for testing jet tubes. Avt.transp. 37 no.11:52
N '59. (MIRA 13:2)
(Automobiles--Engines--Carburetors)

PETROV, Yu.A.; LEZOV, Yu.A.

Experience in the use of ingot molds at the Cherepovets metal-
lurgical plant. Stal' 25 no.8:707-708 Ag '65. (MIRA 18:8)

LEZOVIC, J., Bratislava, KUNZ, Mickiewicza 13

Traumatic injuries of milk and permanent teeth in adolescents.
Lek. obzor 3 no.7-8:386-390 1954.

1. Zo Stomatologickej kliniky SU v Bratislave
(~~TENTH~~, wounds and injuries
deciduous & permanent, in adolescents, ther.)

LEZOVIC, J.; BALAZOVA, G.

Effect of fluorine on the urinary excretion and bone and dental tissue saturation after inhalation. Cesk. stomat. 65 no.4:264-270 J1 '65.

1. Vyskumny ustav hygieny v Bratislave a Ustav pre dalsie vzdelavanie lekarov a farmaceutov v Bratislave.

LEZOVIC, Jan, Dr. Doc.

~~.....~~
Hypnosis in stomatology. Cesk.stomat. no.2:54-56 Mar 55.

1. Ze stomatologickej kliniky SU v Bratislave, predn. prof. Dr
V.Beseda.

(DENTISTRY,

hypnosis in)

(HYPNOSIS, ther. use
in dentistry)

LEZOVIC, J.

~~LEZOVIC, Jan~~
~~SURNAME~~, Given Names

Country: Czechoslovakia

Academic Degrees: (not given)

Affiliation: Department of Stomatology, Slovak Postgraduate Medical Institute (Stomatolog
katedra /Director Docent S. VEIGOS/ Slov. ustav pro doskolovane lekarov
/Director Docent J. LEZOVIC/

Source: Prague, Ceskoslovenske Stomatologie, Vol 61, No 4, July 61, pp 279-285

Data: "Antibiotics in the Treatment of Pulpitis"

GPO 981643

LEZOVIC, J.

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CSSR

LEZOVIC, J., KOTULA, R., LACKO C.

SUDL Stomatological Dept, Bratislava (Stomatologicka katedra SUDL),
director: docent Dr J. Lezovic

Prague, Cesko slovenska Stomatologie, No 1, 1963, pp 36-40

"Influence of Fluorine Exhalations on the Dentition of the Child Population
in the Vicinity of an Aluminum Plant"

LEZOVIC, J., doc. dr.; CIGANEK, L.

Herpes zoster. Cesk. stomat. 65 no.3:165-172 My'65.

1. Stomatologicka katedra Ustavu pre dalsie vzdelavanie lekarov
farmaceutov v Bratislave (veduci: doc. dr. J. Lezovic) a
Neurologicka klinika Lekarskej fakulty University Komenskeho v
Bratislave (prednosta: prof. dr. Cernacek).

COUNTRY : Poland B-9
 CATEGORY :
 ABS. JOUR. : RZKhim., No. 1959, No. 85392
 AUTHOR : Krause, A.; Lezuchowska, J.
 TEST. :
 TITLE : On the Forces of Attraction and the Inter-
 Action between Carrier and Ions of Promoters

ORIG. PUB. : Kocz. chem., 1958, 32, No 5, 1203-1205

ABSTRACT : Study of promoter action of Cu^{2+} ions on the catalytic activity (CA) of roentgen-amorphous orthohydroxide of iron (I) and gamma- FeOOH (II), in relation to oxidation of HCOOH with hydrogen peroxide at 37° . It is shown that CA of I, II, and Cu^{2+} -ion, taken singly, is considerably lower than CA of gels activated with Cu^{2+} (1 mg Cu^{2+} per 0.1 g I or II). It was ascertained that CA of I and II does not depend on whether they are impregnated with Cu^{2+} solution prior to addition to reaction mixture of HCOOH and H_2O_2 , or the solution of Cu^{2+} is added directly to the reaction mixture after I (or II) has been added to the mixture. -- O. Polotnyuk.

CARD:

LEZUCHOWSKA, J.

Influence of light on catalytic reactions. Allons Krause
and J. Lezuchowska (Univ. Poznań, Poland). *Z. anorg.
u. allgem. Chem.* 301, 291-3 (1959).--The catalytic activity
of amorphous Fe(OH)₃ on the H₂O₂ oxidn. of HCO₂H is
slightly greater in daylight than in darkness. Cu⁺⁺ en-
hances this difference. Richard H. Jaquith

Card 1/1

aht

4
1- Jan (13)

JP

LEZUCHOWSKA, J.

7
The catalytic decomposition of hydrogen peroxide and the peroxidatic oxidation of formic acid on amorphous iron(III) hydroxide as a function of the particle size of the latter. Note on the mechanism of these reactions. Alfons Krause and J. Lezuchowska (Univ. Poznań, Poland). *Z. anorg. u. allgem. Chem.* 301, 294-300 (1959).—The accelerating influence of amorphous $\text{Fe}(\text{OH})_3$ on the 1st-order decompn. of H_2O_2 and on the oxidn. of HCO_2H by H_2O_2 , both at 37° , increases with decreasing particle size of the catalyst. Cu^{++} increases the effectiveness of the $\text{Fe}(\text{OH})_3$. The reaction mechanisms and their relation to the mechanisms with other inorg. catalysts and to the action of the enzymes catalase and peroxidase are discussed.
Richard H. Jagulski

4E34
1-8-5 (NB)

cas
11

CBH

LEZUEHOWSKA, J.

Solizetel, Zelteneitler für Hv. Ind. Ind. Ind., Vol. 219, p. 1-2, 1908
(continued)

(continued)

- [illegible]

S/081/63/000/001/018/061
B101/B186

AUTHORS: Krause, A., Lezuchowska, J.

TITLE: Effect of ultraviolet radiation on the activity of some hydroxide catalysts

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 83, abstract 1B573 (Z. phys. Chem. (DDR), v. 29, nos. 1-2, 1962, 140-142 [Ger.])

TEXT: The effect of preliminary irradiation by UV light on the catalytic activity of x-ray amorphous specimens of iron and aluminum hydroxides was studied during the oxidation of formic acid by hydrogen superoxide in solution at 37°C. It was shown that preliminary irradiation delayed the aging of the hydroxide catalysts examined. [Abstracter's note: Complete translation.]

Card 1/1

POLAND

LEZUCHOWSKA, Janina, dr, adiunkt

Department of Inorganic Chemistry (Katedra Chemii
APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R0009298
the name of Adam Mickiewicz.) University of Poznan dedicated to

Wroclaw, Wiadomosci chemiczne, No 9, Sept 63, pp 521-35.

"Classification of Ferric Hydroxides".

LEZYNSKA, Alicja

The problems of the sense of smell & olfactometry. Otolaryng. polska 12
no.2:201-216 1958.

(SMELL

anat., pathol. & physiol., review (Pol))

ARKHIPOVA, T.N., starshiy nauchnyy sotrudnik; KRYUKOVA, A.S.; SIBIRTSEV, S.L.;
LEZZHOVA, L.V.

Crease resistant finish for rayon staple fabrics. Tekst. prom. 18
no.11:27-33 N '58. (MIRA 11:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut khlopchatobumazhnoy
promyshlennosti (for Arkhipova). 2. Nauchnyy rukovoditel' gruppy Nauchno-
issledovatel'skogo instituta organicheskikh poluproduktov i krasiteley
im. K. Voroshilova (for Kryukova). 3. Glavnyy inzh. Pervoy sitsenabivnoy
fabriki (for Sibirtseva). 4. Nachal'nik laboratorii Pervoy sitsenabivnoy
fabriki Moskovskogo gosovsnarkhoza (for Lezzhova).

(Textile finishing) (Rayon)

LGALOV, K. I.

①

Fuel Abstracts
Vol. XV, No. 2
Feb. 1954

1140. HEATING TECHNOLOGY OF COKE OVENS. (TEKHNLOGIYA OBOGREVA
KOKSOVYKH PECHEI). Lgalov, K.I. (Moscow: Metallurgizdat, 1949, 411pp.;
title in Chem. Abstr., 1953, vol. 47, 9597).

IGAIOV, Konstantin Ivanovich; KHAIABUZAR', Georgiy Spiridonovich; KAPTAN, Stepan Ivanovich; KVASHA, A.S., redaktor; ANDREYEV, S.P., tekhnicheskiiy redaktor.

[Technology of drying, warming up, and starting coke ovens] Tekhnologiya sushki, razogreva i pusk koksovykh pechei. Khar'kov, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1954.
365 p. (MIRA 8:4)

(Coke ovens)

60400, R. 2

AFONIN, K.B.; BURTSSEV, K.I.; BYSTROV, S.N.; VINETS, G.B.; VODNEV, G.G.; VORONIN, A.S.; GEVLICH, A.S.; GRYAZNOV, N.S.; GUDIM, A.F.; GUSYATINSKIY, M.A.; DVORIN, S.S.; DIDENKO, V.Ye.; DMITRIYEV, M.M.; DOMDE, M.M.; DOROGOBID, G.M.; ZHDANOV, G.I.; ZAGORUL'KO, A.I.; ZELENHETSKIY, A.G.; IVASHCHENKO, Ya.N.; KAPTAN, S.I.; KVASHA, A.S.; KIREYEV, A.D.; KLISHEVSKIY, G.S.; KOZYREV, V.P.; KOLOBOV, V.N.; ~~IGAICH, K.I.~~; LEYTES, V.A.; LERNER, B.Z.; LOBODA, N.S.; LUBINETS, I.A.; MANDRYKIN, I.I.; MUSTAFIN, F.A.; NEMIROVSKIY, N.Kh.; NEFEDOV, V.A.; OBUKHOVSKIY, Ya.M.; PERETSEV, M.A.; PETROV, I.D.; PODOROZHANSKIY, M.O.; POPOV, A.P.; RAK, A.I.; REVYAKIN, A.A.; ROZHKOVA, A.P.; ROZENGAUZ, D.A.; SAZONOV, S.A.; SIGALOV, M.B.; STOMAKHIN, Ya.B.; TARASOV, S.A.; FILIPPOV, B.S.; FRIDMAN, N.K.; FRISBERG, V.D.; KHAR'KOVSKIY, K.V.; KHOLOPITSKY, V.P.; TSAREV, M.N.; TSOGLIN, M.E.; CHERNYI, I.I. CHERTOK, V.T.; SHELKOV, A.K.

Samuil Borisovich Barmine. Koks i khim. no. 6:64 '56.

(MLRA 9:10)

(Barmine, Samuil Borisovich, 1910-1956)

LGALOV, K. I.

AUTHOR: Lgalov, K.I.

68-12-7/25

TITLE: Development of the Technique of Firing, , Starting
Operation and Heating Coke Ovens (Razvitiye tekhniki
razogreva, puska i obogreva koksovykh pechey)

PERIODICAL: Koks i Khimiya, 1957, No.12, pp. 19 - 21 (USSR)

ABSTRACT: A brief review of the progress made by the Soviet coking
industry in heating-up coke ovens when starting operations and
methods used for improving the output of coke ovens of older
design is given.

ASSOCIATION: Teplotekhstantsiya

AVAILABLE: Library of Congress
Card 1/1

VIROZUB, I.V.; VOLOSHIN, A.I.; LGALOV, K.I.

Heat expended for coking. Koks i khim. no.5:23-29 '60.
(MIRA 13:7)

1. Ukrainskiy uglekhimicheskiy institut (for Virozub, Voloshin).
2. Koksokhimstantsiya (for Lgalov).
(Coal--Carbonisation)

IGALOV, K.I.

Selecting the optimum periodicity of reversal. Koks i khim. no.1:61-62
'63. (MIRA 16:2)

(Coke ovens)

TAYTS, Ye.M., doktor tekhn. nauk; SHVARTS, S.A., kand. tekhn. nauk[deceased]; PEYSAKHZON, I.B., inzh.; GEL'FER, M.L., inzh.; DMITRIYENKO, M.T., inzh.; DORFMAN, G.A., inzh.; IZRAELIT, Ye.M., inzh.; KULAKOV, N.K., inzh.; KUSHLYANSKIY, B.S., inzh.; MEYKSON, L.V., inzh.[deceased]; LEONOV, A.S., inzh.; SHVARTS, G.A., inzh.; SHVARTSMAN, I.Ya., inzh.; YATSENKO, N.Ya., inzh.; BABIN, P.P., inzh.; KHANIN, I.M., doktor tekhn. nauk, prof., red.; KOZYREV, V.P., inzh., red.; KUPCHMAN, P.I., inzh., red.; LGALOV, K.I., inzh., red.; LEYTES, V.A., inzh., red.; LERNER, B.Z., inzh., red.; POTAPOV, A.G., inzh., red.; SHELKOV, A.K., red.

[By-product coke industry worker's handbook in six volumes]
Spravochnik koksokhimika v shesti tomakh. Moskva, Metal-
lurgiya. Vol.2. 1965. 288 p. (MIRA 18:8)

ORNATSKAYA, V.M.; KRASHENINNIKOVA, G.V.; LGALOV, V.G., red. [deceased];
KACHEROVSKIY, N.V., red.

[Calculating shear strength of reinforced concrete building
elements] K voprosu rascheta elementov zhelezobetonnykh kon-
struktsii na skalyvanie. Pod red. V.G.Lgalova. Moskva, 1957.
25 p. (MIRA 12:4)
(Reinforced concrete) (Shear (Mechanics))

COUNTRY : USSR
 CATEGORY : Soil Science. Tillage. Improvement. Erosion. J
 RES. JOUR. : RZhBiol., No. 3 1959, No. 10710
 AUTHOR : Marzhan, B., L'gota, O.
 INST. : -
 TITLE : Significance of Shallow Plowing for Water Status in Soil.
 ORIG. PUB. : Zn sots. s.-kh. nauku, 1957, No. 3, 211-226
 ABSTRACT : Plowing the stubble under increases the porosity and aeration of the upper soil horizons by 10-40%, depending on the type of the soils. On sandy and sandy-loam soils, shallow plowing to the depth of 6 centimeters increased infiltration by 2.6 times; on humous sandy loam soils - by 19 times, and on heavy clayey soil by 34 times more than on the same soils the surface of which was not shallow-plowed. Infiltration of moisture in soils was

CARD: 1/2

39

GRADETS, E. [Hradeš, E.], kand.med.nauk; LGOTKA, Ya. [Lhotka, J.], kand.
med.nauk., dotsent

Recent data on the surgery of primary hyperparathyroidism. Khirurgiia
no.11:82-88 '61. (MIRA 14:12)

1. Iz 2-y khirurgicheskoy kliniki (zav. - dotsent Ya. Igotka)
Karlova universiteta v Praze.
(HYPERPARATHYROIDISM)

LGOTSKIY, A.

BILEK, Vatslav, inzhener; BLATTNYY, TStipor, inzhener, doktor; BROZHEK, Karl, inzhener; DOGNAL, Lyudvig; GLAVACHEK, Frantisek; LGOTSKIY, Alois, inzhener, doktor; MAKHAT, Frantisek; NAZAL, Yaroslav; OSVAD, Vladimir, inzhener; MUZHICHKA, Moymir, inzhner; SALACH, Vatslav, inzhener, doktor; TRKAN, Miroslav, inzhener; ZHILA, Vladimir; SHKOP, Ya., inzhener [translator]; MEDINTSEV, M., inzhener, [translator]; MASLOVA, Ye.F., redaktor; GOTLIB, E.M., tekhnicheskiy redaktor.

[Technology of malt and beer] Tekhologiya soloda i piva. Avtorskii kollektiv Vatslav Bilek i dr. Avtoriz. perevod s cheshskogo IA. Shkopa i M. Medintseva, Moskva, Pishchepromizdat. Vol. 1. [Malt production] Proizvodstvo soloda. Translated from the Czech. 1957. 285 p.

(MLRA 10:6)

(Malt)

SUDNOV, P.Ye., kand.sel'skokhoz.nauk; I.GOV, G.K., kand.selskokhoz.nauk

Effect of organomineral fertilizer mixtures on the quality of
wheat. Agrobiologiya no.4:611-614 J1-Ag '60. (MIRA 13:8)

1. Kabardino-Balkarskaya sel'skokhozyaystvennaya opyt'naya
stantsiya.

(Wheat--Fertilizers and manures)

SUDNOV, P.Ye., kand.sel'skokhozyaystvennykh nauk; L'GOV, G.K., kand.-
sel'skokhozyaystvennykh nauk

Effect of organic-mineral fertilizers on the protein content of
winter wheat. Zemledelie 23 no.12:67-70 D '61. (MIRA 15:1)
(Wheat--Fertilizers and manures) (Proteins)

L'GOVSKIY, A.

36804. Puti Vozniknoveniya i Rasprostraneniya Infektsionnoy Anemii Loshadey i Mery Bor'by s Ney. (Obzor Otklikov Na Odnoim, Stat'yu. G. I. Rozhkova v Zhurn. "Veterinariya", 1949, No. 2). Veterinariya, 1949, No. 12, c. 17-21

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

LHOTKA, J. (Doc Dr)

SURNAME (in caps); Given Names

Country: Czechoslovakia

(3)

Academic Degrees:

Affiliation: Surgical Clinic II of the Faculty of General Medicine of Charles University (II Chirurgická klinika fakulty všeobecného lékařství KU), Prague; Chief (Prednosta): Doc Dr J Lhotka

Source:

Prague, Rozhledy v Tuberkulóze a v Nemocích Plicních, Vol XXI, No 7, August 1961, pp 529-532

Data:

"Associated Pericarditis in Tumors of the Mediastinum and Their Medical Treatment."

Authors:

LHOTKA, J, Doc Dr

REHAR, F, Degrees not given

105

ЛЮТКА, J.

- [illegible]

LHOTA, MIRKO

C

Role of magnesium in glass—contribution to studies on magnesium-lime glasses. MIRKO LHOTA. *Zprávy Českoslov. keram. a sklenář. společnosti*, 28 [3-4] 194-227 (1950).—L., who was first theoretically interested in the lixiviating ability of plain glasses, i.e., glasses with some Al_2O_3 or common magnesium-lime glasses, attempts to explain the part played by magnesium in the glass structure. He prepared two series of experimental glasses and determined the specific gravity, coefficient of linear thermal expansion, the upper limit of the transformation interval, and the softening temperature. By evaluating the results obtained he arrived at the following conclusions: (1) Ions or atoms of magnesium are not able to build up, together with oxygen atoms, a solid structural frame of the glass such as is done by atoms of Si and of other elements which are, according to Zachariasen's theory, considered to be glassforming. (2) Ions or atoms of Mg in magnesium-lime glasses are, under certain circumstances and first of all in glasses with lower contents of SiO_2 , able to assist in the strengthening of the basic glass structure which is formed by tetrahedrons (SiO_4). (3) This action evidently takes place in such a manner that ions or atoms of Mg together with atoms of oxygen form some sort of structural chains and contribute in this way to the strengthening of the glass structure. L. elucidates the data given in the literature concerning the viscosity, lixiviating ability, crystallization ability, and crystallization speed of plain magnesium-lime glasses. He then proposes a method by which it would be possible to improve the resistance of plain magnesium-lime glasses to water and, at the same time, to increase production. 27 references, 11 figures.

LHOTA, M.

Effect of aluminum oxide on the properties of technical glass; p. 132,
SKLAR A KERAMIK (Ministerstvo lehkého průmyslu) Praha, Vol. 4, No. 5,
May 1954

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1956

LHOTA, M.

Effect of aluminum oxide on properties of technical glass. (To be con't.)
p. 168

SKLAR A KERAMIK. (Ministerstvo lehkeho prumyslu)
Vol. 4, no. 6, June 1954

Praha, Czechoslovakia

East European Accessions List

Vol. 5, No. 1

January 1956

LHOTA, M.

Our task is to ensure more, better, and cheaper products; the National Conference of Workers in Light Industry, p. 225, SKLAR A KERAMIK (Ministerstvo lehkeho prumyslu) Praha, Vol. 4, No. 9, Sept. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 45, No. 12, December 1956

LHOTA, MIRKO

1. The thermographic investigation of some melting accelerators for high-alumina glasses.⁴ Ludmila Končková, Mirko Lhota, and Jan Satava. Silikáty 1, 139-45 (1987).
AR
41
The effect of 8 accelerators, BaSO₄, CaF₂, and NaCl, upon the melting of phonolitic bottle glass contg. 10% Al₂O₃, as studied by means of differential and gravimetric thermal

analysis, are reported. In all cases the melting process is favorably affected by the addn. of the additives. The addn. of 1.5% NaCl is most effective. Charles Mareš

4
Jm

COUNTRY : Czechoslovakia
 CATEGORY : H-13
 ABS. JOUR. : RZKhim., No. 21 1959, No. 75564
 AUTHOR : Lhota, M.
 INST. : Not given
 TITLE : The Effect of Chemical Composition on the Properties of Colored Bottle Glass
 ORIG. PUB. : Sklar a Keramik, 9, No 1, 3-6 (1959)
 ABSTRACT : The properties of high-alumina glass are discussed as a function of the content of TiO_2 , Li_2O , ZnO , and BaO , added at the expense of the SiO_2 content, and of additions of Fe_2O_3 and MnO , effected at the expense of a decrease in the content of alkali and alkaline earth metal oxides. It has been found that the addition of TiO_2 has practically no effect on the liquidus temperature and on the rate of crystallization; the rates of decomposition reactions are somewhat increased. The

CARD: 1/4

186

COUNTRY : Czechoslovakia
 CATEGORY : H-13
 ABS. JOUR. : RZKhim., No. 21 1959, No. 75564
 AUTHOR :
 INST. :
 TITLE :
 ORIG. PUB. :
 ABSTRACT : addition of TiO_2 has a marked harmful effect on the crystal structure of the glass along with producing some improvement in the fusibility of the glass. The addition of ZnO has almost no effect on the liquidus temperature; the rate of crystallization is markedly increased. The substitution of Li_2O for 1% of the RO at 40° and for a same amount of R_2O at 25° results in a 40° lowering of the liquidus temperature. Li_2O markedly improves the crystallizing properties of the glass and its fusibility. The leaching

CARD: 2/4

107

COUNTRY	:	Czechoslovakia	H-13
CATEGORY	:		
ABS. JOUR.	:	RZKhim., No. 21	1959, No. 75564
AUTHOR	:		
INST.	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT	:	<p>place of $\text{CaO} + \text{MgO}$ or Na_2O. Glasses containing Fe_2O_3 showed a slightly lower fusibility. Studies on the melting of glasses in the presence of CaF_2 have shown that when the latter is present in amounts of 0.5%, the decomposition reactions are completed at 712 rather than 780°; when the CaF_2 content is 1.5%, the latter reactions are completed at 675°.</p> <p style="text-align: right;">V. Berenfel'd</p>	
CARD:		4/4	

LHOTA, Mirko, dr., inz., C.Sc.

"Glass coloring" by [inz.] Jiri Kocik and [inz.] Jiri Nebrensky.
Reviewed by Mirko Lhota. Sklar a keramik 12 no.12:364 D '62.

LIETA, O.

"Influence of forest shelter belts on the soil humidity in Viner.", p. 189,
(SBORNIK, Vol. 24, #3/4, Oct. 1951, Czechoslovakia)

SO: Monthly List of East European Accessions, Vol 2, #8, Library of
Congress, August 1953, Uncl.